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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,642	04/12/2004	Craig R. Horne	3275.06US03	1933
62274	7590	02/06/2007	EXAMINER	
DARDI & ASSOCIATES, PLLC			HOFFMANN, JOHN M	
220 S. 6TH ST.			ART UNIT	PAPER NUMBER
SUITE 2000, U.S. BANK PLAZA			1731	
MINNEAPOLIS, MN 55402				
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/06/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/822,642	HORNE ET AL.	
	Examiner John Hoffmann	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 20 October 2006.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 20,22-26 and 28-43 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 20,22-26 and 28-43 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/21/06 has been entered.

### ***Claim Objections***

Claims 22-23, 29-30 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims limit a subsequent claim, not a previous claim.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 40-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It unclear if the density is suppose to be interpreted as being a value "between" 0.02 and 0.55, or if the literal meaning that it goes "from" 0.02 to 0.55 (i.e. it starts out as 0.02 and then reaches 0.55. (the same applies to the "from" limitation of claims 41-43. There is no antecedent basis fort "the fully densified material mass density"; it unclear if this means that the material must be fully densified. It is also unclear if the range is suppose to be interpreted as 2%-55% or 0.02%- 0.55% or if it could also be interpreted in other ways.

### ***Claim Rejections - 35 USC § 103***

Claims 20, 28-30, 39-41and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks 4749396 in view of Miller 4501602, Berkey 4684384 and Kobayashi 3957474.

See how Hicks, Berkey, Miller and Kobayashi were previously applied.

Claim 20 has been amended to recite that the coating also comprises silica and a non-rare earth dopant. Miller from col. 3, lines 64 to col. 4, lines 17, as well claim 2 (and lines 8-9 of claim 1) which reasonably discloses using combinations of rare earths and non-rare earths in glass. See also col. 1, lines 43-44 which indicate that non-rare earths are common modifiers in glass. It would have been obvious to add the common modifiers for any of their well-known modifying abilities. As to silica – it is well understood that most glasses comprise silica (SiO<sub>2</sub>) – see references –in particular both of Miller's specific glass examples (7&8) have SiO<sub>2</sub>.

Claims 31-38, 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks 4749396 in view of Miller 4501602, Berkey 4684384, Kobayashi 3957474 and Bi 5958348.

Claim 31: see how Hicks, Miller, Berkey and Kobayashi were applied in prior Office actions. Now, claim 31 has been amended to require that the light beam passes through the reactant stream without striking the insert. Neither Hicks, Miller, Berkey nor Kobayashi teach passing the laser through the stream without striking the insert.

Col. 2, lines 16-24 of Bi discloses that Bi's method is efficient and has high production capacity. It is also noted that applicant admits that laser pyrolysis is standard (page14, line 15 of the present specification). It would have been obvious to use the Bi pyrolysis (i.e. without the laser hitting the insert) to perform the Hicks coating.

As to the forming occurring in a flowing reactor: Examiner first interprets "flowing reactor" , by giving the term the broadest reasonable interpretation in their ordinary usage in context as they would be understood by one of ordinary skill in the art in light of the written description in the specification, including the drawings, unless another meaning is intended by appellants as established in the written description of the specification, and without reading into the claims any limitation or particular embodiment disclosed in the specification. See, e.g., *In re Am. Acad. Of Sci. Tech. Ctr*, 267 F.3d 1359, 1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004); *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). As indicated at page 46, lines 15 –17 of the

present specification, application 10/119,645 is incorporated by reference. And Gardner 6919054 (based on that application) at col. 5, lines 56-65 suggests that all that is required for a "flow reactor" is a reaction chamber. Thus it is deemed that any chamber of any size and shape, no matter how large or small, which can or does contain a reaction reads on the claimed "flowing reactor". A room is a chamber; it would have been obvious to perform all of the steps in a single room/chamber/building so as to make the article without undue time delays, transportation costs, etc. It is noted that Examiner can not reasonably derive any other definition for "flowing reactor" which would exclude a room, consistent with applicant's disclosure that the reactor comprises a chamber, and yet read on applicant's Figure 1 apparatus.

To paraphrase the above: It would be obvious to use the Bi method to make the coating material for the Hicks invention (as modified by the secondary references). It is noted (from col. 7, lines 29-37 of Miller) it is conventional (for over 20 years) to make preforms by directly depositing the soot on a target, as well as collecting the soot for later deposition. It would generally not be invention to separate or incorporate the specific steps of creating the soot, and depositing the soot – either by location or time.

#### From MPEP 2144.04

##### C. Changes in Sequence of Adding Ingredients

Ex parte Rubin , 128 USPQ 440 (Bd. App. 1959) (Prior art reference disclosing a process of making a laminated sheet wherein a base sheet is first coated with a metallic film and thereafter impregnated with a thermosetting material was held to render prima facie obvious claims directed to a process of making a laminated sheet by reversing the order of the prior art process steps.). See also In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results); In re Gibson, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.).

**From MPEP 2144.04**

**C. Making Separable**

*In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) (The claimed structure, a lipstick holder with a removable cap, was fully met by the prior art except that in the prior art the cap is "press fitted" and therefore not manually removable. The court held that "if it were considered desirable for any reason to obtain access to the end of [the prior art's] holder to which the cap is applied, it would be obvious to make the cap removable for that purpose.").

***Response to Arguments***

Applicant's arguments filed 20 October 2006 have been fully considered but they are not persuasive.

It is argued that the references do not teach the composition having SIO<sub>2</sub>, a rare earth and an non rare earth element. As pointed out above, Miller discloses making silicon dioxide- containing glass (examples 7 and 8) and claims 1-2 of Miller are directed to glass (claim 1, line 1) having rare earths as well as non rare earths. Examiner also notes that the USPTO has an entire subclass devoted to making optical waveguides using rare earth dopants (class 65, subclass 390).

The arguments relating to claim 31 and claims that depend therefrom are moot in light of the new grounds of rejection which shows that one would have been motivated is known to use a laser in a manner that does not strike the target – since such is efficient and has a high productivity.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Hoffmann  
Primary Examiner  
Art Unit 1731

1-19 07

jmh